

CLAIMS

1. A chromatographic assay method, comprising the steps of:

- 5 a) providing a membrane type flow matrix attached to a liquid-impervious backing, which flow matrix permits a capillary force assisted lateral fluid flow therethrough, and at least a part of which flow matrix contains ion-exchange functions;
- 10 b) treating the flow matrix to reduce or eliminate unspecific adsorption properties of the flow matrix;
- 15 c) applying to the flow matrix a sample containing at least two components;
- d) initiating a first lateral flow of aqueous fluid to transport the sample through the flow matrix and separate said components therein;
- 20 e) interrupting said lateral flow; and either
- f1) detecting at least one of said separated components on the flow matrix in the position reached by the respective component when the flow was interrupted; or
- f2a) initiating a second flow of aqueous fluid to transport the components in a direction substantially transverse to the direction of the first lateral flow;
- 25 f2b) interrupting said second lateral flow; and
- f2c) detecting at least one of said separated components on the flow matrix in the position reached by the respective components when the flow was interrupted.

which flow (d) or (f2a)

2. The method according to claim 1, wherein the separated components are immobilized on the flow matrix in their separated positions prior to detecting said at least one component.

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102 3. The method according to claim 2, wherein the separated components are chemically immobilized on the flow matrix

5 102 4. The method according to claim 2 or 3, wherein the flow matrix is subjected to a staining procedure to detect the component or components.

5. The method according to claim 4, wherein said staining procedure is selected from protein staining, lipid staining, carbohydrate staining, and DNA-staining.

10 6. The method according to claim 2 or 3, wherein a labelled reactant capable of specifically binding to said at least one component is added to the membrane for the detection thereof.

15 102 7. ~~The method according to any one of claims 1 to 6, wherein the membrane type flow matrix is placed on a flat support surface with the backing contacting the surface.~~

20 102 8. A chromatographic device comprising a membrane type flow matrix attached to a liquid-impervious backing, which membrane permits a capillary force assisted lateral fluid flow therethrough and is modified to support ion-exchange functions.

25 102 9. An apparatus for determining components in a sample, which apparatus comprises a chromatographic device according to claim 8, and means for initiating and maintaining a liquid flow through the membrane.

30 102 10. The apparatus according to claim 9, which further comprises reagents for detecting one or more of sample components separated in said device, and optionally also reagents for chemically immobilizing the separated components in the device prior to the detection.